

What is claimed is:

1. A X-DSL modem comprising:

an analog portion for converting packets of digitized symbols to an analog transmission and for converting received analog signals to packets of digitized symbols;

5 a DFT engine operating as a filter for packets of digitized data and digitized symbols encoded with a CAP QAM line code and as a baseband to carrier band converter and vice versa for packets of digitized data and digitized symbols respectively encoded in a DMT line code;

a framer/encoder for framing and encoding packetized digitized data from a plurality
10 of communication channels in at least two DMT and CAP QAM X-DSL line codes; and
a decoder/deframer for decoding and deframing the digitized data on the receive path.

add a:

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